

**REMARKS**

This Amendment cancels claims 1-13 in favor of new claims 14-31. The new claims generally correspond to canceled claims 1-11 but have been drafted in accordance with U.S. practice. Claims 14-31 are pending.

This Amendment overcomes the Restriction Requirement. More particularly, withdrawn claims 12 and 13 have been canceled, and new claims 14-31 drafted toward the subject matter of Group IV, subject to applicants' right to file a divisional application. Reconsideration and withdrawal of the Restriction Requirement are earnestly requested.

This Amendment overcomes the 35 U.S.C. § 112, second paragraph, rejection of claims 1-10. New claims 14-31 do not employ "such as" phrases, parenthetical phrases or recite preferred embodiments within a generic limitation. Reconsideration and withdrawal of the indefiniteness rejection of claims 1-10 are earnestly requested.

The 35 U.S.C. § 102(b) rejection of claims 1, 2, 4, 5, 9 and 10 over Kwiatkowski et al., 22 Nucleic Acids Research 2604-2611 (1994) is respectfully traversed. The claimed labeling reactant may contain a nucleoside, in which case its linker arm is attached to the 3-position of the pyrimidine ring. Kwiatkowski et al. fails to disclose or suggest this feature of the claimed invention.

Reconsideration and withdrawal of the anticipation rejection of claims 1, 2, 4, 5, 9 and 10 are earnestly requested.

The 35 U.S.C. § 102(b) rejection of claims 1, 3 and 5 over Sigmund et al., 16 Nucleosides & Nucleotides 685-696 (1997) is also traversed. As discussed above, the claimed labeling reactant may contain a nucleoside, in which case its linker arm is attached to the 3-position of a pyrimidine ring. Sigmund et al. fails to disclose or suggest this feature of the claimed invention. Reconsideration and withdrawal of the anticipation rejection of claims 1, 3 and 5 are earnestly requested.

The 35 U.S.C. § 103(a) rejection of claims 1-5 and 8-11 over Kwiatkowski et al. and Sigmund et al. in view of Nardone, International Patent Publication WO 99/64431 is traversed. As discussed above, the claimed labeling reactant may contain a nucleoside, in which case its linker arm is attached to the 3-position of the pyrimidine ring.

The cited combination of references fails to raise a prima facie case of obviousness against the claimed labeling reactant because one of ordinary skill in the art is given no motivation or suggestion to modify the cited references to arrive at the claimed invention. In this regard, Kwiatkowski et al. discloses the synthesis of an oligonucleotide labeling reactant whose linker is limited to the C5 position of pyrimidine bases. One of ordinary

skill in the art is given no suggestion or motivation to modify Kwiatkowski et al. to arrive at a nucleoside labeling reactant whose linker arm is attached to the 3-position of the pyrimidine ring. Similarly, Sigmund et al. discloses the synthesis of oligonucleotides bearing fluorescein at the C6 position of an adenine moiety. The labeling reactant permits site specific introduction of fluorescein to the oligonucleotide structure on a solid phase (page 687). One of ordinary skill in the art is given no suggestion or motivation to modify Sigmund et al. to arrive at a nucleoside labeling reactant whose linker arm is attached to the 3-position of the pyrimidine ring.

The deficiencies of Kwiatkowski et al. and Sigmund et al. are not remedied by the additional disclosure of Nardone et al. The tertiary reference discloses substituted pyrimidines wherein L is a linker group and Q is a quencher group; P is a pyrimidine group and L is directly or indirectly linked to the carbon atom at the 4 or 5 position of P, or P is a purine group and L is linked to the carbon at the 8 position of P, and x is an activated phosphorous group capable of bonding to a 3'-hydroxyl group of another nucleotide, y is a protected hydroxyl group, or a protected amino group; or y is an activated phosphorous group capable of bonding to a 5'-hydroxyl group of another nucleotide, x is a protected hydroxyl group, and z is -H, -F, OCH<sub>3</sub>, -O-allyl, a protected

hydroxyl group, or a protected amine group. In short, one of ordinary skill in the art is given no suggestion to arrive at the claimed labeling reactant from Nardone et al.

Reconsideration and withdrawal of the obviousness rejection of claims 1-5 and 8-11 are earnestly requested.

The 35 U.S.C. § 112, first paragraph, rejection of claims 1-10 for failure to comply with the written description requirement is traversed. Claims 1-10 are original claims<sup>1</sup>; there is a strong presumption that an adequate written description of the claimed invention is present when the application is filed, In re Wertheim, 541 F.2d 257, 263, 191 USPQ 90, 97 (CCPA 1976). Claims 1-10 are directed to chemical compounds ("labeling reactants") of specified generic formula. The Federal Circuit has indicated that such claims generally comply with the written description requirement:

In claims involving chemical materials, generic formulae usually indicate with specificity what the generic claims encompass. One skilled in the art can distinguish such a formula from others and can identify many of the species that the claims encompass. Accordingly, such a formula is normally an adequate description of the claimed genus.

Regents of the University of California v. Eli Lilly, 119 F.3d 1559, 1568, 43 USPQ 1398, 1406 (Fed. Cir. 1997), cert. denied, 523 U.S. 1089 (1998).

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<sup>1</sup>The Preliminary Amendment filed December 14, 2001 merely corrected an obvious error in dependent claim 8. Similarly, the Amendment filed February 10, 2003 corrected another obvious error in claims 1 and 13.

The written description requirement is often used to determine whether a new or amended claim contains a limitation which is not supported by the specification. In this case, claims 1-13 have been canceled in favor of new claims 14-31. These new claims generally correspond to canceled claims 1-11, and thus are also directed to chemical compounds ("labeling reactants") of specified generic formula. The new claims do not contain a new limitation; instead, they encompass most but not all of the species of labeling reactant disclosed in the specification. Reconsideration and withdrawal of the 35 U.S.C. § 112, first paragraph, rejection of claims 1-10 are earnestly requested.

It is believed this application is in condition for allowance. Reconsideration and withdrawal of all rejections of claims 1-11, and issuance of a Notice of Allowance directed to claims 14-31, are earnestly requested. The Examiner is urged to telephone the undersigned should he believe any further action is required for allowance.

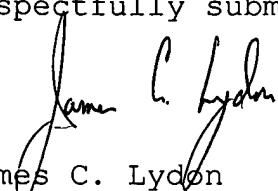
It is not believed any fee is required for entry and consideration of this Amendment. Nevertheless, the Commissioner is

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AMENDMENT

**PATENT**

authorized to charge our Deposit Account No. 50-1258 in the amount  
of any such required fee.

Respectfully submitted,



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